





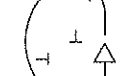
[illegible]

EXISTING SIGNALS	EXISTING OPTICOM	PROPOSED PHASING
3-6, 9, 10  12" / 8"	15 	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">   <b>NORMAL OPERATION</b> </div> <div style="text-align: center;">   <b>HIGH PRIORITY PRE-EMPTION OPERATION</b> </div> </div>
<u>PROPOSED SIGNALS</u> 1, 2, 7, 8 	16 	<div style="text-align: center;">   <b>LOW PRIORITY PRE-EMPTION OPERATION</b> </div>

<u>EQUIPMENT LIST</u>				
A. S.H.A. equipment to be installed by the Contractor.				
Item No.	Quantity	Units	Description	
9009	1	EA	Opticom discriminator module (562)	
9085	1	EA	Cabinet with telemetry (system cab.), size 5.	
9087	1	EA	Controller ASC II with telemetry.	
9089	18	SF	Flat sheet aluminum sign - mast arm mount. [1 each 36 in. x 72 in. W 11-B(1)]	
9089	9	SF	Flat sheet aluminum sign - ground mount. [1 each 36 in. x 36 in. R 1-1]	
9098	2	EA	Sign hardware - 30 in. form tube.	

Item No.	Quantity	Units	Description
1001	1	EA	Maintenance of traffic per assignment.
2001	1	CY	Test pit excavation.
5004	55	LF	24 in. white HAPPTM.
5007	15	LF	Remove existing pavement markings - any width.
8001	4.65	CY	Concrete for signal foundation.
8012	1	EA	3M Opticom *721 Low Priority detector eye.
8015	3	EA	3M Opticom Low Priority emitter system 500 series.
8019	1	EA	Install controller and cabinet - pole mount.
8024	100	LF	2 in. (Schedule 80) PVC electrical conduit- trenched.
8027	50	LF	3 in. (Schedule 80) PVC electrical conduit- trenched.
8029	60	LF	3 in. (Schedule 80) PVC electrical conduit - bored.
8033	1	EA	Electrical handhole.
8034	1	EA	Ground rod (3/4 in. x 10 ft. length).
8037	85	LF	4-conductor Opticom detector cable.
8039	225	LF	12 pair communication cable, jelly filled (underground).
8045	225	LF	Electrical cable - 7-conductor (No. 14 AWG).
8046	50	LF	Electrical cable - 2-conductor (No. 12 AWG) Type in TC.
8048	30	LF	Stranded bare copper ground wire (No. 6 AWG).
8049	15	LF	Electrical cable - 1-conductor (No. 4 AWG) - THHN/THWN.
8052	9	SF	Install ground mounted sign.
8053	18	SF	Install overhead sign.
8055	1	EA	250 watt HPS luminaire with photocell.
8056	1	EA	20 ft. lighting bracket arm for traffic signal structure.
8066	1	EA	Control and distribution equipment (120/240, 1 phase, 3 wire).
8079	1	EA	Master arm pole and 70 ft. mast arm.
8084	8	EA	12 in. black faced vehicular traffic signal head section - mast arm.
8085	4	EA	8 in. black faced vehicular traffic signal head section - mast arm.

## PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of an additional Fire House traffic signal for northbound MD 5 at the intersection of MD 5 and Mechanicsville Road in St. Mary's County, Maryland. MD 5 is considered to run in a north/south direction.

II. OPERATION

The new Fire House signal will be equipped with a pole mounted cabinet and controller.

A telemetry interconnect cable will be installed to the existing Fire House signal at the Southbound MD 5 and Mechanicsville Road intersection.

A low priority Opticom Detector Eye and an additional pre-emption phase module are to be installed at the Northbound MD 5 and Mechanicsville Road intersection.

1. Normal Operation:

Both intersections will operate with flashing yellow indications for the MD 5 approaches and flashing red indications for the Mechanicsville Road approaches.

2. Emergency Pre-emption operation:

Phase 1 - High Priority Signal

The intersections will operate as indicated above unless the High Priority Opticom emergency Pre-emption is actuated which will stop all approaches except the Eastbound Mechanicsville Road approaches to both intersections.

Phase 2 - Low Priority Signal

The intersections will operate as indicated above unless the Low Priority Opticom emergency Pre-emption is actuated which will stop all approaches except the Eastbound Mechanicsville Road approaches at the Southbound MD 5 intersection. The Northbound MD 5 intersection shall remain in normal operation.

III. SPECIAL NOTE

Make arrangements to deliver three (3) Opticom Low Priority Emitters (System 500 Series) visible light filter and hardware to Mechanicsville Volunteer Fire Hall. Contact: Chief John B. R. at (303) 884-9818 (fire house) or (303) 475-8096 (work).

## CONTACT LIST

The contact persons for District #5 are as follows:

Mr. Paul Armstrong  
District Engineer  
410-841-5450

Mr. Larry Elliott  
Assistant District Engineer - Traffic  
410-841-5450

Mr. John Mays  
Assistant District Engineer - Utility  
410-841-5420

Mr. Chuck George  
Assistant District Engineer - Maintenance  
410-841-5461

Mr. Richard L. Daff  
Chief, Traffic Operations Division  
410-787-7630

The Power Company Representative is:  
SMCO Arlie Goode  
23365 Hollywood Road  
Leonardtown, Maryland 20650  
301-475-1582

## NOTES

1. Geometries must be confirmed prior to the installation of signal equipment. All signal equipment to be installed at final grade.
2. Pavement markings detailed are proposed and are to be installed by the Contractor in accordance with MD-SHA standards. All other pavement markings are to be considered as existing.
3. Revision 'A' is a revision to the traffic signal built in January, 1998 under S.H.A. Contract No.: AMW295185.
4. All underground and overhead utilities shown on these plans are schematic and are not to be considered complete. The Contractor shall be responsible for notifying all utility companies prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal equipment will occur, the Contractor shall notify the appropriate Project Engineer immediately.

## CONSTRUCTION DETAILS



- A. Install 17 ft. steel mast arm pole with 70 ft. mast arm, vehicle signal heads, sign, 20 ft. luminaire arm, 250 watt HPS luminaire, pole mounted NEMA 5 cabinet/controller and necessary equipment for an underground electrical (MD-SHA Type P-13) service. (Note: one 3 in. PVC conduit bend).
- B. Install handhole.
- C. Install 2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
- D. Install 3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
- E. Install 3 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
- F. Use existing handhole.
- G. Use existing conduit.
- H. Use existing cabinet/controller. Install additional pre-emption equipment.
- J. Install 24 in. wide pavement marking - white for stop line.
- K. Modify ground mounted sign as shown.
- L. Remove existing pavement markings by grinding.
- M. Proposed underground electrical service by SMECO.
- N. Use existing mast arm. Install opticom detector eye.

**GEOMETRIC LEGEND**

== == == EXISTING GEOMETRICS  
== == PROPOSED GEOMETRICS

**UTILITY LEGEND**

— G — G — GAS MAIN  
— W — W — WATER MAIN  
— S — S — SEWER MAIN  
— E — E — ELECTRIC CABLES  
— D — D — STORM DRAIN  
— A — A — AERIAL CABLES  
— T — T — TELEPHONE CABLES

<p>Revision "A"</p>  <p><i>The Traffic Group, Inc.</i> 410-931-6600 Fax 410-931-6601</p>	<p>REVISIONS</p> <table border="1"> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> <p>June 20, 2000</p> <p>Add NB MD 5 indications. S.H.A. No.: XX1005585</p> <p>jld <i>BAW</i> <i>mtc</i> <i>DAZ</i> <i>FRY</i> <i>W</i></p>																										<p>APPROVALS</p> <p><i>ORIGINAL ON FILE</i></p> <p>TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION</p> <p>ASST. CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION</p> <p>CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION</p> <p>DIRECTOR, TRAFFIC &amp; SAFETY</p>	 <p>MARYLAND DOT - STATE HIGHWAY ADMINISTRATION Office of Traffic &amp; Safety TRAFFIC ENGINEERING DESIGN DIVISION (Fire House Signal Plan) <i>MD 5 at Mechanicsville Road</i></p> <table border="1"> <tr> <td>DRAWN BY: _____</td> <td>F.A.P. NO. _____</td> <td>AC-STPG-000S(590)E _____</td> <td>TS NO. _____</td> </tr> <tr> <td>CHECKED BY: _____</td> <td>S.H.A. No. <b>SM 799A4056</b></td> <td>3670-A _____</td> <td>SHEET NO. _____</td> </tr> <tr> <td>SCALE: 1" = 20'</td> <td>COUNTY: St. Mary's</td> <td>T.I.M.S. NO. _____</td> <td></td> </tr> <tr> <td>DATE: January 22, 1998</td> <td>LOG MILE: 18005040.25</td> <td>D-929 _____</td> <td>1 OF 1</td> </tr> </table>	DRAWN BY: _____	F.A.P. NO. _____	AC-STPG-000S(590)E _____	TS NO. _____	CHECKED BY: _____	S.H.A. No. <b>SM 799A4056</b>	3670-A _____	SHEET NO. _____	SCALE: 1" = 20'	COUNTY: St. Mary's	T.I.M.S. NO. _____		DATE: January 22, 1998	LOG MILE: 18005040.25	D-929 _____	1 OF 1
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